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# UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/086,540	03/04/2002	Morten Bruun-Larsen	0459-0700P	1861

2292 7590 02/13/2003

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FALLS CHURCH, VA 22040-0747

EXAMINER

MENEFEE, JAMES A

ART UNIT	PAPER NUMBER
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2828

DATE MAILED: 02/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/086,540

Applicant(s)

BRUUN-LARSEN ET AL.

Examiner

James A. Menefee

Art Unit

2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.



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**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.                      6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-41 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. There is no structure in the claims to suggest that the beam splitter will split the beam such that the output powers of the primary and secondary beams are related as claimed, i.e. secondary power is a fixed percentage of the primary power. Applicant only claims that the splitter is "adapted" to do this. It is not clear from the claims how the beam splitter will split the beam as claimed, as the structure of the claims does not support the beam splitter splitting the beam in this manner.

Claim 15 recites the limitation "the predetermined output power" in line 2. There is insufficient antecedent basis for this limitation in the claim. "the" should be changed to -a-.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kmetec et al. (previously cited US 5,757,831) in view of Mizuno et al. (US 5,978,346).

Art Unit: 2828

Regarding claims 1 and 27, Kmetec discloses an optical system comprising a light source 10 for emission of a first light beam, a beam splitter 50 that splits the first light beam into a primary and a secondary output beam, and transmits the primary output beam and reflects the secondary output beam. A detector 56 measures the power of the secondary output beam and provides a control signal to the light source for stabilizing the power of the light beam based on the secondary output beam. See Fig. 4 and the discussion thereof, and note that applicant has admitted this disclosure of Kmetec in the discussion of the background of the invention. It is not disclosed that the power of the secondary output is kept at a substantially fixed percentage of the power of the primary output. Mizuno teaches an optical system employing a beam splitter having a dielectric coating that is the same as that described in the applicant's specification. It would have been obvious to one skilled in the art to substitute Mizuno's beam splitter into Kmetec's system because of its ease in manufacturing, as taught by Mizuno (col. 9 lines 49-60). Thus, the structure of the system as claimed is the same as the structure formed by the combination of Kmetec and Mizuno. When the structure of the prior art is the same as the structure of the claims, then claimed properties and characteristics may be assumed to be inherent. Thus, the claimed characteristics of the beams, i.e. the power of the second beam being a fixed percentage of the power of the primary beam, are presumed to be inherent.

Regarding claims 2, 4-15, 17-18, 28, and 30-36, and 38-39, as Mizuno's beam splitter is the same as that of the present invention, these claimed characteristics of the beams that are formed by such a beam splitter will be found in the beams split by Mizuno's beam splitter when placed in Kmetec's system.

Art Unit: 2828

Regarding claims 3, 16, 29, and 37, Mizuno's beam splitter is made of materials where the transmittance and reflectance of the splitter will be invariant to a change in temperature or wavelength.

Regarding claim 19, Kmetec discloses the light source is a solid-state laser.

Regarding claim 20, it is not disclosed that the light source is a wavelength tunable laser. However, wavelength tunable lasers are well known in the art, so much to encompass an entire classification subclass, 372/20. It would have been obvious to one skilled in the art to substitute a wavelength tunable laser for the laser of Kmetec so that the laser may be used in one of countless applications where tuning of a laser to a desired output is needed, as is well known.

Regarding claims 21-26 and 40-41, Mizuno's beam splitter may comprise alternating layers of  $\text{TiO}_2$  and  $\text{SiO}_2$  (Table 2), which will have the refractive index characteristics as claimed, thus meeting all of these limitations.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Menefee whose telephone number is (703) 605-4367. The examiner can normally be reached on M-F 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Ip can be reached on (703) 308-3098. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Application/Control Number: 10/086,540

Page 5

Art Unit: 2828

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

JM  
January 31, 2003



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